



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

007083

D350-748-103
Job Sheet 185756



Part No: D350-748-103

Job Qty: 1 ea

Part Name: AS350 / AS355 Stainless Steel Fwd Crosstube



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/1/18

Job Tracking No:

Due Date: 11/8/18

Created By: Jesse White

Type: Stock

Description:

Note: D350-748-143 REV:A IPP Rev:A PRELIM New Issue LL 12.05.08 Ipp rev:B DEO ADDED POWDER COAT
JLM VERIFIED BY:JFS

Ship Via:

Bill of Materials

220

Pushed fwd
because of
Problems

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	11/8/18	11/8/18	0.00	0.00	Start Up Crosstubes-1		
110	CNC Bend Skidtubes	1 pcs	11/8/18	11/8/18	6.53	3.45	CNC Bend Skidtube		
127	QC	1 pcs	11/8/18	11/8/18	0.00	0.00	QC15		
128	Crosstubes	1 pcs	11/8/18	11/8/18	0.00	2.49	Crosstubes-2		
130	Crosstubes	1 pcs	11/8/18	11/8/18	0.00	2.49	Crosstubes-2		
140	QC	1 pcs	11/8/18	11/8/18	0.00	0.00	QC5		
174	Outsource	1 pcs	11/8/18	11/8/18			SKY002-VC		
176	Packaging	1 pcs	11/8/18	11/8/18	0.00	0.00	Packaging2		
178	QC	1 pcs	11/8/18	11/8/18	0.00	0.00	QC5		
180	SprayPaint	1 pcs	11/8/18	11/8/18	0.00	0.99	Spray Paint		
190	QC	1 pcs	11/8/18	11/8/18	0.00	0.00	QC14		
193	Outsource - 11 - Paint	1 pcs	11/8/18	11/8/18			ATE003-VC	5	
195	Packaging 2-1 - Receive - B4B	1 pcs	11/8/18	11/8/18	0.00	0.00	Packaging 2 - 1 - B4B		
197	QC 6	1 pcs	11/8/18	11/8/18	0.00	0.00	QC 6 - 16		
200	Crosstubes	1 pcs	11/8/18	11/8/18	0.00	2.49	Crosstubes-2		
210	QC	1 pcs	11/8/18	11/8/18	0.00	0.00	QC5		
220	Packaging	1 pcs	11/8/18	11/8/18	0.00	0.00	Packaging1-3		
230	QC	1 pcs	11/8/18	11/8/18	0.00	0.00	QC4		
240	Packaging	1 pcs	11/8/18	11/8/18	0.00	0.00	Packaging3-1		
245	DC	1 pcs	11/8/18	11/8/18	0.00	0.00	DC		
250	QC21-FG	1 Ea	11/8/18	11/8/18	0.00	0.00	QC21		

Part Op 110 - Bend tube as per Dwg D350-748-143 using CNC bender program D350F and Folio FT
 Descriptions: CROSSTUBE DIMENSIONS AS PER DWG**** UNDER BEND .225" PER SIDE**** USE (4) DT9824 SHIM BLOC
 TO CHECK STRAIGHTNESS****

127 - ***MARK CUT LINES***

128 - CUT TUBE AT HEIGHT ON FAI SHEET VERF HEIGHT _____ BY QC 15 LEVEL INSPECTOR _____
 VERF TWIST _____ BY QC15 LEVEL INSPECTOR _____

130 - 1- Drill Tube as per Dwg D350-748-143 Using DT8876 A,B & C Drill Jigs, set-up drill table as per QSI 010 2- Deburr
 3- Engrave Part # and Batch # as per Dwg D350-748-143 4- Remove all marks from tube within limits of D350-748-143
 140 - CHECK 10 DEG HOLES WITH DT8876E (EUROCOPTER CLAMP)

174 - ISSUE P/O TO SKY SERVICE:

180 - ***VERIFY BY _____ BATCH # TO MATCH W/O _____ ***MASK SCRIBE B# & P# AND
 VERIFY*** 1. Apply Axalta 13205S Cleaner inside and outside crosstube per QSI 005 4.1.4 BATCH: _____

LIMIT AIR PRESSURE TO 50 PSI WHEN INSTALLING AETC-1032 INSERT AND ONLY EXPAND INSERT ONCE
 2. Axalta 230S Metalok inside and outside crosstube per QSI 005 4.1.4 BATCH: _____ 3. Prime inside and outside
 crosstube per QSI 005 4.2 BATCH: _____ 4. Paint outside of crosstube per QSI 005 4.2 BATCH: _____

190 - Then,Wrap in plastic bag to protect from scratches ***VERIFY BY _____ BATCH # TO MATCH W/O

193 - ISSUE P/O: _____ 1. Apply Axalta 13205S Cleaner inside and outside crosstube per QSI 005

4.1.4 BATCH: _____ 2. Axalta 230S Metalok inside and outside crosstube per QSI 005 4.1.4 BATCH: _____

3. Prime inside and outside crosstube per QSI 005 4.2 BATCH: _____ 4. Paint outside of crosstube per QSI 005 4.2
 BATCH: _____ C OF C IS REQUIRED

200 - INSTALL GROUND WIRE INSERT, THEN INSERT SCREW AND WASHER 1-Abrade mating surfaces of support
 and crosstube with 180 grit sandpaper, clean the area with MEK or equivalent as per dwg 2-Install supports with Proseal
 890 per D350-748-143 and QSI 015 A/R Proseal 890 Batch: 5096374 EXP: 3/19 3-Install supports
 clamps Using D8876 as per Dwg D350-748-141, Torque to 60-80 IN-LBS. PROSEAL CURE TIME 72 HOURS:

Start: 18/11/23 Finish: 18/11/27 ***RE-CHECK TORQUE ON CLAMP AFTER
 PROSEAL HAS CURED FOR 72HOURS AS PER DWG.***

210 - ***RE-CHECK TORQUE ON CLAMP AFTER PROSEAL HAS CURED FOR 72HOURS AS PER DWG.***

***VERIFY BY _____ BATCH # TO MATCH W/O _____

230 - ***VERIFY BY _____ BATCH # TO MATCH W/O _____

240 - Identify and pack for shipping as per PPP D350-748-103 Location: _____ PPP Rev: _____

245 - Photocopy bluefile & type labels per PPPD350-748-103 CHG001

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D350-748-143TRN	Ss Crosstube Turning Detail	1 Ea (1 ea)	90-Start up Operation	
AETC-1032	Insert	1 Ea (1 ea)	200-Crosstubes	
D3502-1	Support	2 Ea (2 ea)	200-Crosstubes	
D5123-7	Clamp Cushion	2 Ea (2 ea)	200-Crosstubes	
MS21920-20	Clamp	2 Ea (2 ea)	200-Crosstubes	
MS51958-63	Screw	1 pcs (1 ea)	200-Crosstubes	
NAS1149C0363R	Washer	1 Ea (1 ea)	200-Crosstubes	
AN4-41A	Bolt	8 Ea (8 ea)	220-Packaging	5058981-1
AN4-6A	Bolt	16 Ea (16 ea)	220-Packaging	5053948
AN5-32A	Bolt	4 Ea (4 ea)	220-Packaging	5058983-1
D3500-1	Saddle	4 Ea (4 ea)	220-Packaging	5105264
D3501-1	Bushing	16 Ea (16 ea)	220-Packaging	31241356
MS21042L4	Nut	24 Ea (24 ea)	220-Packaging	5112434
MS21042L5	Nut	4 Ea (4 ea)	220-Packaging	5093592
NAS1149D0463J	Washer	32 Ea (32 ea)	220-Packaging	5092780
NAS1149D0563J	Washer	8 Ea (8 ea)	220-Packaging	5050053

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D350-748-143TRN	1	5	0
200-Crosstubes	AETC-1032 FM137335	①	199	0
	D3502-1 5089362	②	20	0
	D5123-7 163264	②	283	0
	MS21920-20 MS21920-22	② 5105481	176	0
	MS51958-63 FM134962	①	57	0
	NAS1149C0363R 5132615	①	199	0
220-Packaging	AN4-41A	8	431	0
	AN4-6A	16	694	0
	AN5-32A	4	525	0
	D3500-1	4	31	0
	D3501-1	16	381	0
	MS21042L4	24	2,366	0
	MS21042L5	4	415	0
	NAS1149D0463J	32	4,642	0
	NAS1149D0563J	8	1,308	0

Part Specifications

Specifications could not be found.

Plex 11/22/18 11:46 AM dart.belanger.natasha



Dart Aerospace Ltd.
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Hawkesbury, ON
K6A 1K7
Canada

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D350-748-103
Job Sheet 185756



Part No: D350-748-103

Job Qty: 1 ea

Part Name: AS350 / AS355 Stainless Steel Fwd Crosstube



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/1/18

Job Tracking No:

Due Date: 11/8/18

Created By: Jesse White

Type: Stock

Description:

Note: D350-748-143 REV:A IPP Rev:A PRELIM New Issue LL 12.05.08 lpp rev:B DEO ADDED POWDER COAT
JLM VERIFIED BY:JFS

Ship Via:

Bill of Materials



DART Aerospace Ltd.
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Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S125340



Part: D350-748-103

Job No: 185756

Serial No/Batch: S125340

Revision: A

Inspector:

Exp Date:

Instructions: TC STC SH06-27 Issue 2, FAA STC SR02359NY 11/03/04, EASA S

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		11/8/18	0.00	0.00	Start Up Crosstubes-1		GP 2018-11-07
110	CNC Bend Skid tubes	1 pcs		11/8/18	6.53	3.45	CNC Bend Skid tube		GP 2018-11-07
127	QC	1 pcs		11/8/18	0.00	0.00	QC15		38
128	Crosstubes	1 pcs		11/8/18	0.00	2.49	Crosstubes-2		GP 2018-11-07
130	Crosstubes	1 pcs		11/8/18	0.00	2.49	Crosstubes-2		GP 2018-11-07
140	QC	1 pcs		11/8/18	0.00	0.00	QC5		SVD
174	Outsource	1 pcs		11/8/18			SKY002-VC		18-11-12
176	Packaging	1 pcs		11/8/18	0.00	0.00	Packaging2		15. NOV 9 2018
178	QC	1 pcs		11/8/18	0.00	0.00	QC5		38
180	SprayPaint	1 pcs		11/8/18	0.00	0.99	Spray Paint		9-89
190	QC	1 pcs		11/8/18	0.00	0.00	QC14		
200	Crosstubes	1 pcs		11/8/18	0.00	2.49	Crosstubes-2		
210	QC	1 pcs		11/8/18	0.00	0.00	QC5		
220	Packaging	1 pcs		11/8/18	0.00	0.00	Packaging1-3		
230	QC	1 pcs		11/8/18	0.00	0.00	QC4		
240	Packaging	1 pcs		11/8/18	0.00	0.00	Packaging3-1		
245	DC	1 pcs		11/8/18	0.00	0.00	DC		
250	QC21-FG	1 Ea		11/8/18	0.00	0.00	QC21		

Part Op 110 - Bend tube as per Dwg D350-748-143 using CNC bender program D350F and Folio FT *****VERIFY
 Descriptions: CROSTUBE DIMENSIONS AS PER DWG *****UNDER BEND .225" PER SIDE*****USE (4) DT9824 SHIM BLOC
 TO CHECK STRAIGHTNESS*****

127 - ***MARK CUT LINES***

128 - CUT TUBE AT HEIGHT ON FAI SHEET VERF HEIGHT _____ BY QC 15 LEVEL INSPECTOR _____
 VERF TWIST 0.09 BY QC15 LEVEL INSPECTOR _____

130 - 1- Drill Tube as per Dwg D350-748-143 Using DT8876 A,B & C Drill Jigs, set-up drill table as per QSI 010 2- Deburr
 3- Engrave Part # and Batch # as per Dwg D350-748-143 4- Remove all marks from tube within limits of D350-748-143

140 - CHECK 10 DEG HOLES WITH DT8876E (EUROCOPTER CLAMP)

174 - ISSUE P/O TO SKY SERVICE: _____

180 - ***VERIFY BY _____ BATCH # TO MATCH W/O _____ ***MASK SCRIBE B# & P# AND
 VERIFY*** 1. Apply Axalta 13205S Cleaner inside and outside crosstube per QSI 005 4.1.4 BATCH: _____

LIMIT AIR PRESSURE TO 50 PSI WHEN INSTALLING AETC-1032 INSERT AND ONLY EXPAND INSERT ONCE
 2. Axalta 230S Metalok inside and outside crosstube per QSI 005 4.1.4 BATCH: _____ 3. Prime inside and outside
 crosstube per QSI 005 4.2 BATCH: _____ 4. Paint outside of crosstube per QSI 005 4.2 BATCH: _____

190 - Then, Wrap in plastic bag to protect from scratches ***VERIFY BY _____ BATCH # TO MATCH W/O

200 - INSTALL GROUND WIRE INSERT, THEN INSERT SCREW AND WASHER 1-Abrade mating surfaces of support
 and crosstube with 180 grit sandpaper, clean the area with MEK or equivalent as per dwg 2-Install supports with Proseal
 890 per D350-748-143 and QSI 015 A/R Proseal 890 Batch: 5096394 EXP: EX 3/17 3-Install supports
 clamps Using DT8876 as per Dwg D350-748-141, Torque to 60-80 IN-LBS. PROSEAL CURE TIME 72 HOURS:
 Start: 18/11/23 Finish: 18/11/24 ***RE-CHECK TORQUE ON CLAMP AFTER

PROSEAL HAS CURED FOR 72HOURS AS PER DWG.***

210 - ***RE-CHECK TORQUE ON CLAMP AFTER PROSEAL HAS CURED FOR 72HOURS AS PER DWG.***

***VERIFY BY _____ BATCH # TO MATCH W/O _____

230 - ***VERIFY BY _____ BATCH # TO MATCH W/O _____

240 - Identify and pack for shipping as per PPP D350-748-103 Location: _____ PPP Rev: _____

245 - Photocopy bluefile & type labels per PPPD350-748-103 CHG001

→ 193: Outsource - Atelier Debossage - P0041772 - 18-11-19

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D350-748-143TRN	Ss Crosstube Turning Detail	1 Ea (1 ea)	90-Start up Operation	2081354
AETC-1032	Insert	1 Ea (1 ea)	200-Crosstubes	
D3502-1	Support	2 Ea (2 ea)	200-Crosstubes	
D5123-7	Clamp Cushion	2 Ea (2 ea)	200-Crosstubes	
MS21920-20	Clamp	2 Ea (2 ea)	200-Crosstubes	
MS51958-63	Screw	1 pcs (1 ea)	200-Crosstubes	
NAS1149C0363R	Washer	1 Ea (1 ea)	200-Crosstubes	
AN4-41A	Bolt	8 Ea (8 ea)	220-Packaging	
AN4-6A	Bolt	16 Ea (16 ea)	220-Packaging	
AN5-32A	Bolt	4 Ea (4 ea)	220-Packaging	
D3500-1	Saddle	4 Ea (4 ea)	220-Packaging	
D3501-1	Bushing	16 Ea (16 ea)	220-Packaging	
MS21042L4	Nut	24 Ea (24 ea)	220-Packaging	
MS21042L5	Nut	4 Ea (4 ea)	220-Packaging	
NAS1149D0463J	Washer	32 Ea (32 ea)	220-Packaging	
NAS1149D0563J	Washer	8 Ea (8 ea)	220-Packaging	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D350-748-143TRN	1	6	0
200-Crosstubes	AETC-1032	1	229	0
	D3502-1	2	22	0
	D5123-7	2	285	0
	MS21920-20	2	176	0
	MS51958-63	1	58	0
	NAS1149C0363R	1	232	0
220-Packaging	AN4-41A	8	439	0
	AN4-6A	16	938	0
	AN5-32A	4	529	0
	D3500-1	4	35	0
	D3501-1	16	116	0
	MS21042L4	24	3,367	0
	MS21042L5	4	519	0
	NAS1149D0463J	32	729	0
	NAS1149D0563J	8	1,496	0

Part Specifications

Specifications could not be found.

Plex 11/1/18 11:39 AM dart.white.jesse

Item	Qty	Part Number	Description
	-143		
	X	D350-748-143	CROSSTUBE ASSEMBLY (AS 350/355 HI FWD)
1	1	D6021-125	CROSSTUBE
2	2	D3502-1	SUPPORT
3	2	D5123-7	CLAMP CUSHION
4	1	AETC-1032	INSERT
5	2	MS21920-20 OR MS21920-21-22	CLAMP (PER DART SPEC. M-MS21920-20-21-22)
6	1	NAS1149C0363R	WASHER (OR AN960C10)
7	1	NAS1635-3-8	SCREW (OR MS51958-63)
8	A/R	PROSEAL 890 B-2	SEALANT, AMS-S-8902 CLASS B-2

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6021-125 (17-4PH)
- 2) FINISH: FINISHED LENGTH AFTER TURNING = 112.270±0.06 (AFTER BENDING/TRIMMING = 110.27 REF)
- 3) TOLERANCE: PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
WALL THICKNESS ECCENTRICITY PER DART QSI 038 7.2
MIN. ALLOWABLE WALL IS -0.020 FROM NOMINAL
UNITS: INCHES UNLESS OTHERWISE NOTED
BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
IDENTIFICATION: DART PART NUMBER "D350-748-143" AND BATCH NUMBER ON INSIDE OF CUFF
PER DART QSI 044 6.4 (VIBRATING STYLUS)
- 7) WEIGHT: 30.45 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE, EXCEPT FOR Ø0.290 HOLE.
- 9) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE. WHEN DRILLING HOLES EXTREME CARE MUST BE TAKEN AND CAREFUL DEBURRING PERFORMED TO ENSURE A CLEAN HOLE WITH NO CRACKING/CHIPPING/GROOVES.
- TURNING
10) BLEND OUT ALL EDGES FROM MACHINING LONGITUDINALLY. TRANSITION SHOULD BE SMOOTH. NOTE: ALL HOLES ARE DRILLED AFTER BENDING.
- BENDING
11) BEND PROGRESSIVELY WITH A MINIMUM OF 7 PASSES PER SIDE. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D. ON TOP HALF OF BEND, AND 8% ON BOTTOM HALF OF BEND.
12) MAX AMPLITUDE OF RIBBLING ALONG BENT PORTION OF THE TUBE IS 0.030 (ZN A1-3)
13) MAX TWIST: WITH TUBE LAYED FLAT ON SURFACE. THE DIFFERENCE BETWEEN CUFF HEIGHTS FROM THE SURFACE MAY BE NO LARGER THAN 0.38 (ZN C1-3).
- ASSEMBLY
14) TO INSTALL D3502-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.02" TO 0.05" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8902 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
15) TORQUE CLAMPS 80 TO 80 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

DEO ATTACHED

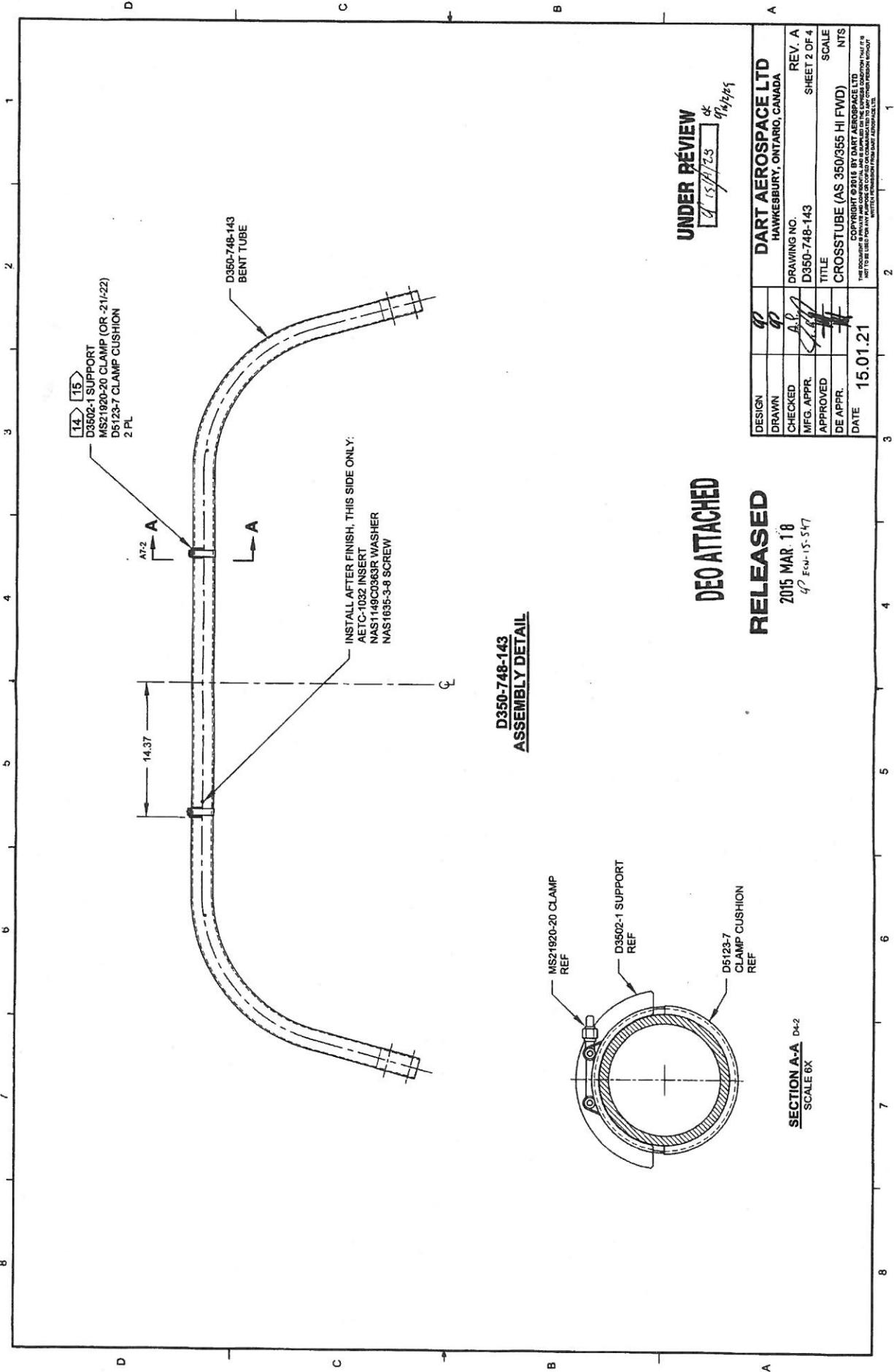
RELEASED

2015 MAR 18
DEN 15-547

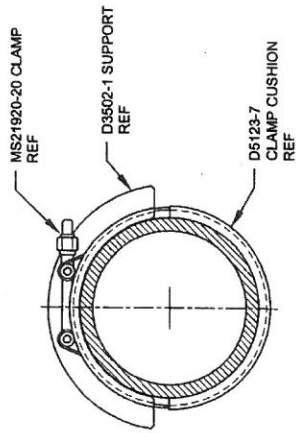
UNDER REVIEW
6/15/12
CRF 10-561

REV. A	NEW ISSUE	DESCRIPTION	CP	BY	DATE
DESIGN		DART AEROSPACE LTD			15.01.21
DRAWN		HAWKESBURY, ONTARIO, CANADA			
CHECKED		DRAWING NO.			REV. A
MFG. APPR.		D350-748-143			SHEET 1 OF 4
APPROVED		TITLE			SCALE
DE APPR.		CROSSTUBE (AS 350/355 HI FWD)			NTS
DATE	15.01.21				

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D350-748-143
ASSEMBLY DETAIL



SECTION A-A D4-2
SCALE 6X

DEO ATTACHED

RELEASED

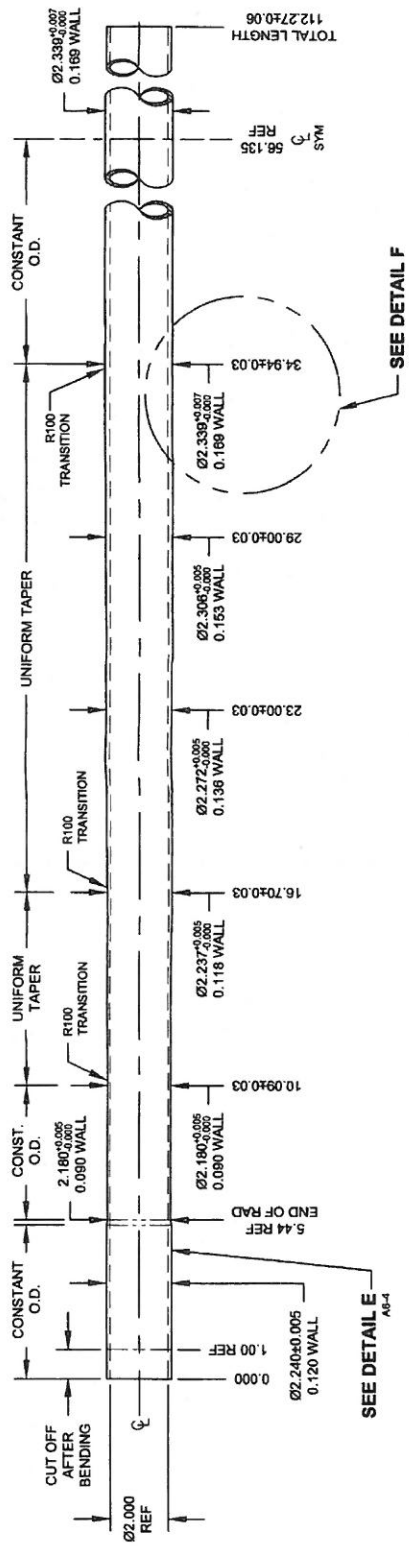
2015 MAR 18
47 ECU-15-547

UNDER REVIEW
15/1/23
9/1/23

DESIGN	00	DART AEROSPACE LTD
DRAWN	00	HAWKESBURY, ONTARIO, CANADA
CHECKED	00	DRAWING NO.
MFG. APPR.	00	D350-748-143
APPROVED	00	TITLE
DE APPR.	00	CROSSTUBE (AS 350/355 HI FWD)
DATE	15.01.21	SCALE
		NTS

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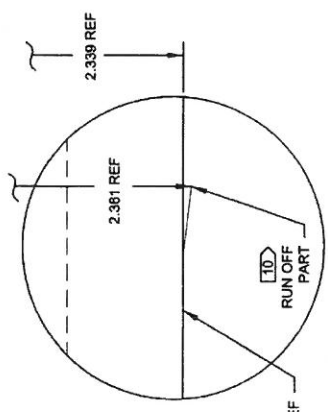


SEE DETAIL F
A1-4

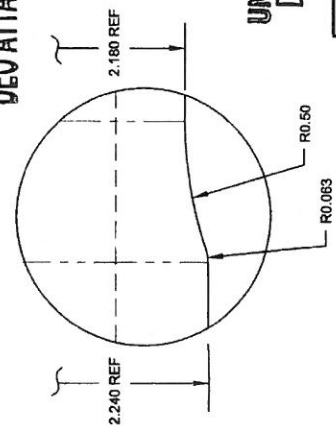
D350-748-143TRN
TURNING DETAIL

RELEASED
2015 MAR 18
DEO ATTACHED

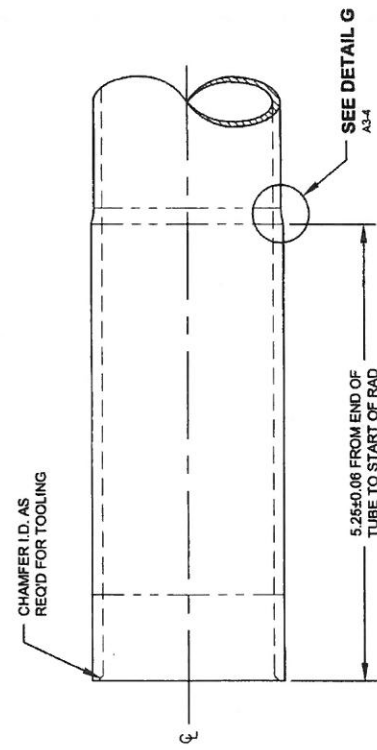
SEE DETAIL E
A6-4



DETAIL F:
TOOL RUN-OFF
NOT TO SCALE
C3-4



DETAIL G:
CUFF TRANSITION
NOT TO SCALE
A5-4



DETAIL E:
CROSSTUBE CUFF
SCALE 3X
C7-4

DESIGN	40	DART AEROSPACE LTD
DRAWN	40	HAWKESBURY, ONTARIO, CANADA
CHECKED	A.P.	REV. A
MFG. APPR.		DRAWING NO. D350-748-143
APPROVED		SHEET 4 OF 4
DE APPR.		TITLE CROSSTUBE (AS 350/355 HI FWD)
DATE	15.01.21	SCALE NTS

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DRAWING NO. D350-748-143	TITLE CROSSTUBE	REV. A	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D350-748-143-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN 15.11.18	CHECKED 15.11.18		MFG. APPR. 15.11.18	APPROVED 15.11.18		DE APPR. 15.11.18	
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE

AMEND NOTE 2 (SHEET 1) AS FOLLOWS:

- 2) FINISH: PREPARE SURFACE PER DART QSI 005 4.1.4
 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
 PAINT OUTSIDE PER DART QSI 005 4.2

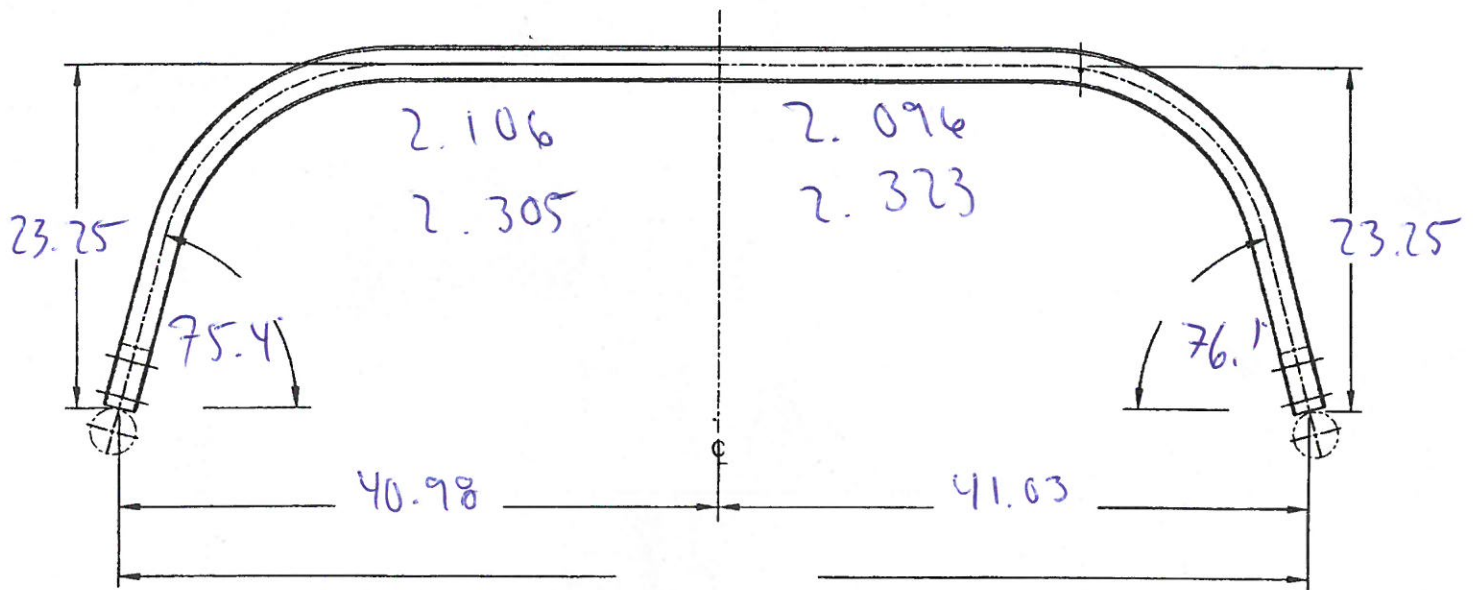
OR

POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3

RELEASED
 2016-02-26
 ECW 16-534

DART AEROSPACE LTD		Work Order:	
Description: Crosstube High Fwd, SS (AS350/355)		Part Number:	D350-748-103
Inspection Dwg: D350-748-143 Rev: A		Page 1 of 1	

Required Dimension	Min	Max
Height	23.00	23.50
1/2 Span	40.77	41.03
Angle	75	77
Total Span	81.55	82.05
Bending Passes	7	--
Crushing	--	8%
Twist	--	0.38



	Side A	Side B
Bending Passes		
Crushing	4.5%	5.1%
Comments		

QC15 Inspection	JB
Date	18-11-06

Rev	Date	Change	Revised by	Approved
A	15.09.09	New Issue	KJ	AA

250 5

200 5

250 5

200 5

200

200

200

200



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041680**

Supplier: SKY002-VC
Skyservice
6120 Midfield Road
Mississauga
ON
L5P 1B1 Canada
Phone: 905-678-5636
Fax: 905-678-5841

PO No: PO041680
PO Date: 11/12/18
Due Date: 11/20/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments: Please confirm pricing, and delivery to
ctsimiklis@dartaero.com

Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	181671	D350-748-203	AS350 / AS355 Stainless Steel Aft Crosstube : TC STC SH06-27 Issue 2, FAA STC SR02359NY 11/03/04, EASA STC EASA.10016903 Revision 2 10/09/03, BRAZIL 2009S04-04 09/04/06 ISSUE P/O TO SKY SERVICE:	Firmed	-	11/20/18	1 pcs	0 pcs	1 pcs	\$182.14285/pcs	\$182.14
	181668			Firmed	-	11/20/18	1 pcs	0 pcs	1 pcs	\$182.14285/pcs	\$182.14
Sub Total:							2	0	2		\$364.29
2	184649	D212-664-101	Fwd Crosstube - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA-316/2015 15/06/17 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038 LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	11/20/18	1 pcs	0 pcs	1 pcs	\$182.14285/pcs	\$182.14
	184650			Firmed	-	11/20/18	1 pcs	0 pcs	1 pcs	\$182.14285/pcs	\$182.14
	184696			Firmed	-	11/20/18	1 pcs	0 pcs	1 pcs	\$182.14285/pcs	\$182.14
Sub Total:							3	0	3		\$546.43



Dart Aerospace Ltd.
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PURCHASE ORDER **PO041680**

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	185756	D350-748-103	AS350 / AS355 Stainless Steel Fwd Crosstube : TC STC SH06-27 Issue 2, FAA STC SR02359NY 11/03/04, EASA STC EASA.10016903 Revision 2 10/09/03, BRAZIL 2009S04-04 09/04/06 ISSUE P/O TO SKY SERVICE: _____	Firmed	-	11/20/18	1 pcs	0 pcs	1 pcs	\$182.14285/pcs	\$182.14
4	184242	D4464-041	Fuel Tank Assembly : Various STC's ISSUE P/O : _____ LIQUID PENETRANT INSPECTION AS PER QSI 038 OR LPI AS PER ASTM 1417 LEVEL 2	Firmed	-	11/20/18	1 pcs	0 pcs	1 pcs	\$182.14285/pcs	\$182.14

Grand Total: \$1,275.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 11/12/18 4:02 PM dart.tsimiklis.chrisoula

**skyservice****Work Order Traveler**

Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

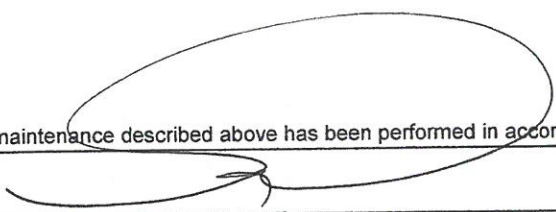
WO #: MWO38124	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: P6041680
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:**CARRY OUT NDT ON:**

- ✓ 1 FUEL TANK ASSY , P/N# D4464-041 , J/S# 184242 ✓
- ✓ 3 FWD CROSSTUBES , P/N# D212-664-101 , J/S# 184649 , 184650 , 184696 ✓
- ✓ 1 FWD CROSSTUBE , P/N# D350-748-103 , J/S# 185756 ✓
- ✓ 2 AFT CROSSTUBES , P/N# D350-748-203 , J/S# 181671 , 181668 ✓

Action Taken:						Date:	Initial/Stamp:
LPI C/O IAW ASTM E-1417 REV. 16						NOV 12 2018	 DOT-APP 20 53-89
NO CRACK OR LEAK FOUND							
PEN. ZL-56, MPO13600, CLEANER SKC-S MPO13923 , DEV. MPO11715 , UV LIGHT M-20142							
Description	Location	P/N	Qty	Batch	S/N Off	S/N On	
			DAS				
			3A				
			9-89				

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature: 	ACA/SCA Stamp DOT-APP 20 53-89	Date: NOV 12 2018
Name: RAFIK MELIKIAN		



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041772**

Supplier: ATE003-VC
Atelier Debosselage
358 Principale
Calumet
QC
J0V 1B0 Canada
Phone: 819 242 5633

PO No: PO041772
PO Date: 11/19/18
Due Date: 11/22/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Tsimiklis, Chrisoula
Phone:
Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	181671	D350-748-203	AS350 / AS355 Stainless Steel Aft Crosstube : TC STC SH06-27 Issue 2, FAA STC SR02359NY 11/03/04, EASA STC EASA.10016903 Revision 2 10/09/03, BRAZIL 2009S04-04 09/04/06 ISSUE P/O: _____ 1. Apply Axalta 13205S Cleaner inside and outside crosstube per QSI 005 4.1.4 BATCH: _____ 2. Axalta 230S Metalok inside and outside crosstube per QSI 005 4.1.4 BATCH: _____ 3. Prime inside and outside crosstube per QSI 005 4.2 BATCH: _____ 4. Paint outside of crosstube per QSI 005 4.2 BATCH: _____ C OF C IS REQUIRED	Firmed	-	11/22/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00
	181668			Firmed	-	11/22/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00
							Sub Total:	2	0	2	\$450.00



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
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Canada

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PURCHASE ORDER **PO041772**

Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
2	185756	D350-748-103	AS350 / AS355 Stainless Steel Fwd Crosstube : TC STC SH06-27 Issue 2, FAA STC SR02359NY 11/03/04, EASA STC EASA.10016903 Revision 2 10/09/03, BRAZIL 2009S04-04 09/04/06 ISSUE P/O: _____ 1. Apply Axalta 13205S Cleaner inside and outside crosstube per QSI 005 4.1.4 BATCH: _____ 2. Axalta 230S Metalok inside and outside crosstube per QSI 005 4.1.4 BATCH: _____ 3. Prime inside and outside crosstube per QSI 005 4.2 BATCH: _____ 4. Paint outside of crosstube per QSI 005 4.2 BATCH: _____ C OF C IS REQUIRED	Firmed	-	11/22/18	1 pcs	0 pcs	1 pcs	\$225.00/pcs	\$225.00
Grand Total:										\$675.00	

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

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Plex 11/19/18 1:53 PM dart.tsimiklis.chrisoula

